Appl. No.

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

(Currently Amended): A method of inhibiting cellular proliferation Claim 1 comprising inhibiting the activity or reducing the amount of a proliferation-required polypeptide comprising the amino acid sequence consisting of SEQ ID NO: 325 or an amino acid sequence selected from the group consisting of an amino acid sequence having at least 40% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 60% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 70% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 80% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 90% amino acid identity to SEQ ID NO: 325 and an amino acid sequence having at least 95% amino acid identity to SEQ ID NO: 325, or inhibiting the activity or reducing the amount of a nucleic acid encoding said polypeptide, thereby inhibiting cellular proliferation wherein inhibiting the activity or reducing the amount of a polypentide comprising the amino acid sequence consisting of SEO ID NO: 325 or inhibiting the activity or reducing the amount of a nucleic acid-encoding said-polypeptide inhibits cellular proliferation.

Claim 2 Cancelled

Claim 3 (Original): The method of Claim 1, wherein the cell in which proliferation is inhibited is *Escherichia coli*.

Claim 4 (Currently Amended): A method for inhibiting cellular proliferation comprising contacting a cell with a compound which inhibits the activity or reduces the amount of a proliferation-required polypeptide comprising the amino acid sequence eonsisting of SEQ ID NO: 325 or an amino acid sequence selected from the group consisting of an amino acid sequence having at least 40% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 60% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 70% amino acid identity to SEQ ID NO: 325, an amino acid sequence

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having at least 80% amino acid identity to SEQ ID NO: 325, an amino acid sequence having at least 90% amino acid identity to SEQ ID NO: 325 and an amino acid sequence having at least 95% amino acid identity to SEQ ID NO: 325, or which inhibits the activity or reduces the amount of a nucleic acid comprising a nucleotide sequence encoding said polypeptide, thereby inhibiting proliferation wherein contacting said cell with said compound inhibits cellular proliferation.

Claim 5 (Original): The method of Claim 4, wherein said compound is an antisense nucleic acid.

Claim 6 (Previously Presented): The method of Claim 5, wherein said compound is an antisense nucleic acid comprising a sequence selected from the group consisting of SEQ ID NOs: 459 and 460, or a proliferation-inhibiting portion thereof.

Claim 7 (Previously Presented): The method of Claim 6, wherein said proliferation inhibiting portion of one of SEQ ID NOs: 459 or 460 is a fragment comprising at least 10, at least 20, at least 25, at least 30, at least 50 or more than 50 consecutive nucleotides of one of SEQ ID NOs: 459 or 460.

Claim 8 (Original): The method of Claim 4, wherein said compound is a triple helix oligonucleotide.

Claim 9 Cancelled

Claim 10 (Original): The method of Claim 4, wherein the cell in which proliferation is inhibited is *Escherichia coli*.

Claim 11 (Currently Amended): A method for inhibiting cellular proliferation comprising contacting a cell with a compound with activity against a proliferation-required gene corresponding to comprising the nucleotide sequence of SEQ ID NO: 165 or a nucleotide sequence selected from the group consisting of a nucleotide sequence having at least 40% nucleotide identity to SEQ ID NO: 165, a nucleotide sequence having at least 60% nucleotide identity to SEQ ID NO: 165, a nucleotide sequence having at least 70% nucleotide identity to SEQ ID NO: 165, a nucleotide sequence having at least 80% nucleotide identity to SEQ ID NO: 165, a nucleotide sequence having at least 80% nucleotide identity to SEQ ID NO: 165, and a nucleotide sequence having at least 90% nucleotide identity to SEQ ID NO: 165, or

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with activity against the product of said gene, wherein contacting said cell with said compound inhibits thereby inhibiting cellular proliferation.

Claim 12 (Original): The method of Claim 11, wherein said compound is an antisense nucleic acid.

Claim 13 (Previously Presented): The method of Claim 12, wherein said compound is an antisense oligonucleotide comprising a sequence selected from the group consisting of SEQ ID NOs: 459 and 460, or a proliferation-inhibiting portion thereof.

Claim 14 (Previously Presented): The method of Claim 13, wherein said proliferation inhibiting portion of one of SEQ ID NOs: 459 or 460 is a fragment comprising at least 10, at least 20, at least 25, at least 30, at least 50 or more than 50 consecutive nucleotides of one of SEQ ID NOs: 459 or 460.

Claim 15 (Original): The method of Claim 11, wherein said compound is a triple helix oligonucleotide.

Claim 16 Cancelled

Claim 17 (Original): The method of Claim 11, wherein the cell in which proliferation is inhibited is *Escherichia coli*.

Claim 18 (Previously Presented): The method of Claim 1, wherein the cell in which proliferation is inhibited is selected from the group consisting of *Escherichia coli*, *Pseudomonas aeruginosa*, *Enterobacter cloacae*, *Helicobacter pylori*, *Neisseria gonorrhoeae*, *Haemophilus influenzae*, *Salmonella typhimurium*, *Salmonella typhi*, *Salmonella paratyphi*, *Salmonella cholerasuis*, *Klebsiella pneumoniae*, *Yersinia pestis*, and *Campylobacter jejuni* or any species falling within the genera of any of the above species.

Claim 19 (Previously Presented): The method of Claim 4, wherein the cell in which proliferation is inhibited is selected from the group consisting of Escherichia coli, Pseudomonas aeruginosa, Enterobacter cloacae, Helicobacter pylori, Neisseria gonorrhoeae, Haemophilus influenzae, Salmonella typhimurium, Salmonella typhi, Salmonella paratyphi, Salmonella cholerasuis, Klebsiella pneumoniae, Yersinia pestis, and Campylobacter jejuni or any species falling within the genera of any of the above species.

Claim 20 (Previously Presented): The method of Claim 11, wherein the cell in which proliferation is inhibited is selected from the group consisting of *Escherichia coli*,

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Pseudomonas aeruginosa, Enterobacter cloacae, Helicobacter pylori, Neisseria gonorrhoeae, Haemophilus influenzae, Salmonella typhimurium, Salmonella typhi, Salmonella paratyphi, Salmonella cholerasuis, Klebsiella pneumoniae, Yersinia pestis, and Campylobacter jejuni or any species falling within the genera of any of the above species.

Claim 21 (New): The method of Claim 1, wherein said polypeptide possesses an ADP heptose synthase activity.

Claim 22 (New): The method of Claim 4, wherein said polypeptide possesses an ADP heptose synthase activity.

Claim 23 (New): The method of Claim 11, wherein said gene encodes a polypeptide that possesses an ADP heptose synthase activity.